



PROCEDURE

POND A-4 SHELTER SUPPORT SYSTEMS

4-D40-ENV-SW 35

Revision 1

Date Effective 06/25/97

APPROVED FOR USE

[Signature]
Manager, Surface Water

Page 1 of 29

TABLE OF CONTENTS

TITLE	1
TABLE OF CONTENTS	1
1 PURPOSE	3
2 SCOPE	3
3 OVERVIEW	3
4 LIMITATIONS AND PRECAUTIONS	4
5 PREREQUISITE ACTIONS	5
5 1 Planning And Coordination	5
5 2 Materials and Equipment	5
5 2 1 Special Tools and Equipment	5
5 2 2 Consumables	6
5 3 Field Preparation	6
6 INSTRUCTIONS-DIESEL GENERATOR POND-A4-DG-1 STARTUP	6
7 INSTRUCTIONS-DIESEL GENERATOR POND-A4-DG-1 SHUTDOWN	12
8 INSTRUCTIONS-SHELTER LIGHTING SYSTEM STARTUP	14
9 INSTRUCTIONS-SHELTER LIGHTING SYSTEM SHUTDOWN	15
10 INSTRUCTIONS-PROPANE HEATING SYSTEM STARTUP	16
12 INSTRUCTIONS-FUEL OIL TRANSFER SYSTEM OPERATION	20
13 INSTRUCTIONS-NEW FUEL SUPPLY	23
14 POST-PERFORMANCE ACTIVITY	24
14 1 Disposition	24
15 REFERENCES	24

6/25/97

APPENDICES

Appendix 1 Pond A-4 Shelter Diesel Generator Control Panel POND-A4-Cp-1	25
Appendix 2 Pond A-4 Shelter Lighting Panel Lp1a Pond A-4 Tent 1	26
Appendix 3 Pond A-4 Shelter Propane Gas System	27
Appendix 4 Pond A-4 Shelter Propane Heating System Control Panels	28
Appendix 5 Pond A-4 Shelter Fuel Oil Transfer System	29

6/25/97

1 PURPOSE

This procedure provides instructions for operating and maintaining diesel generator POND-A4-DG-1, the shelter lighting system, and the propane heating system for the Pond A-4 Shelter

The Pond A-4 Shelter is required during permitted surface water discharges under the Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Permit No CO-0001333

2 SCOPE

This procedure addresses the following activities for operating diesel generator POND-A4-DG-1, which supplies electrical power, and the propane heating system for the Pond A-4 Shelter

- Startup and shutdown of diesel generator POND-A4-DG-1
- Startup and shutdown of the Pond A-4 Shelter lighting system
- Startup and shutdown of the Pond A-4 Shelter propane heating system
- Operation of the fuel oil transfer system
- New fuel supply

RMRS Surface Water and subcontractor personnel are responsible for daily operations

RMRS Surface Water personnel are responsible for all scheduled preventive maintenance activities

This procedure does not address any of the water treatment equipment associated with POND A-4

3 OVERVIEW

Pond A-4 is on the east side of the Rocky Flats Environmental Technology Site (RFETS) in the Buffer Zone, and is operated by RFETS and subcontractor personnel

The Pond A-4 Shelter is a temporary tent structure which houses water treatment equipment and instrumentation for final processing, as required, of surface water discharges

The influent water to Pond A-4, routed and pumped through a network of detention ponds, is RFETS surface water runoff and effluent from the Waste Water Treatment Plant

Diesel generator Pond-A4-DG-1 is the only source of electrical power for the Pond A-4 Shelter

POND-A4-DG-1 supplies electrical power for

- The shelter lighting system
- The shelter propane heating system
- Fuel oil transfer pump POND-A4-P-3

Instruction sections may be performed independently

4 LIMITATIONS AND PRECAUTIONS

- Rattlesnakes and bull snakes are common in the Buffer Zone (1-25600-HSP-20 01)
- Hearing protection is required when working around diesel generator POND-A4-DG-1 while the diesel generator is operating.
- Safety shoes and safety glasses are required when work of any kind is performed in or around the shelter. Hard hats may be required for certain tasks
- All shelter doors shall remain closed when winds exceed 35 mph
- Smoking is not permitted in the Buffer Zone (1-25600-HSP-20 01)
- Eating or drinking is not permitted inside or in the vicinity of the shelter (1-25600-HSP-20 01)
- All shelter doors shall remain locked when not in use
- All combustible liquids and oily rags or wipes shall be disposed of in accordance with 1-10000-HWR, *Hazardous Waste Requirements Manual* (HWRM)

5 PREREQUISITE ACTIONS

5 1 Planning and Coordination

Surface Water (SW) Manager

- [1] Ensure that two Field Technicians are available to perform this procedure

5 2 Materials and Equipment

NOTE *Section 5 2 applies to Section 6, Diesel Generator POND-A4-DG-1 Startup only*

Field Technician

- [1] Obtain the keys to the shelter doors and to the diesel generator POND-A4-DG-1 access panels
- [2] Ensure that the following spare parts are available
- Diesel engine lubricating oil, API service SG/CD-II, CE, CF-4 in accordance with Operations and Maintenance Manual, 40ROZJ Generator, Kohler Power Systems
 - Diesel engine radiator coolant, NYFD of A No 4459 Cont approved board of S&A-CAL-#33-80-A in accordance with Operations and Maintenance Manual, 40ROZJ Generator, Kohler Power Systems
 - One (1) gallon of distilled water

5 2 1 Special Tools and Equipment

Field Technician

- [1] Obtain acid-resistant gloves

5.2.2 Consumables

Field Technician

- [1] Obtain disposable towels

5.3 Field Preparation

SW Project Manager

- [1] Ensure that the planned activity is scheduled on the Environmental Operations Plan of the Day in Building T891E, x5302

Field Technician

- [2] Obtain a Buffer Zone Pass, and sign in and out on the Buffer Zone Daily Access Log at T891E when entering and exiting the Buffer Zone (1-25600-HSP-20 01)
- [3] Maintain two-way radio communication capability with the Surface Water Project Manager in Building T893A or Environmental Operations Management in Building T891E while in the Buffer Zone (1-25600-HSP-20 01)
- [4] Locate the following fire extinguishers:
 - Inside the shelter at each personnel door
 - Outside the shelter, north of diesel generator POND-A4-DG-1
 - Outside the shelter between diesel generator POND-A4-DG-1 and fuel oil storage tank POND-A4-TK-3
 - Outside the shelter, west of propane gas storage tank POND-A4-TK-1

6 INSTRUCTIONS-DIESEL GENERATOR POND-A4-DG-1 STARTUP

Field Technician

- [1] Ensure that all applicable prerequisites in Section 5, Prerequisite Actions are complete
 - [A] Record in the Log Book.
- [2] Remove the necessary access panels for diesel generator POND-A4-DG-1

6/25/97

-
- [3] Visually inspect the fan belt for cracking or excessive wear
 - [4] IF the fan belt is showing signs of cracking or excessive wear,
THEN
 - [A] Notify the SW Project Manager to initiate corrective action in accordance with 1-74000-IWCP-1, *Work Control Form Processing*
 - [B] Record in Log Book
 - [5] Observe the coolant level of the radiator for POND-A4-DG-1
 - [6] IF the coolant level is at or below the top of the radiator core,
THEN
 - [A] Inspect the engine area for a major leak
 - [B] Notify the SW Project Manager to initiate corrective action for major leaks in accordance with 1-74000-IWCP-1, *Work Control Form Processing*
 - [C] Record in Log Book
 - [D] Add approximately a 50/50 mix of coolant and distilled water, with the SW Project Manager's approval, to bring the coolant level above the radiator core
 - [a] Record in the Log Book
 - [7] Observe both diesel engine battery terminals for any sign of corrosion
 - [8] IF a battery terminal shows any sign of corrosion,
THEN
 - [A] Notify the SW Project Manager to initiate corrective action in accordance with 1-74000-IWCP-1, *Work Control Form Processing*
 - [B] Record in the Log Book

6/25/97

WARNING

Acid-resistant gloves are to be worn when checking liquid levels in battery cells.

- [9] Observe the liquid level in all battery cells
- [10] IF any cell liquid level is below the full ring,
THEN
 - [A] Notify the SW Project Manager to initiate corrective action in accordance with 1-74000-IWCP-1, *Work Control Form Processing*
 - [B] Record in the Log Book.
 - [C] Add distilled water, with the SW Project Manager's approval, to bring the liquid level up to the full ring
 - [a] Record in the Log Book.
- [11] Verify that the diesel engine lubricating oil level is within the upper and lower marks on the dipstick.
- [12] IF the diesel engine lubricating oil level is NOT within the upper and lower marks on the dipstick,
THEN
 - [A] Inspect the engine area for a major leak.
 - [B] Notify the SW Project Manager to initiate corrective action for major leaks in accordance with 1-74000-IWCP-1, *Work Control Form Processing*.
 - [C] Record in the Log Book.
 - [D] Add lubricating oil, with the SW Project Manager's approval, to bring the oil level to the full mark on the dipstick.
 - [a] Record in the Log Book.

6/25/97

NOTE *The POND-A4-DG-1 subbase fuel tank is not maintained full to allow for expansion*

[13] Observe fuel gauge/fill cap POND-A4-LG-4 for the POND-A4-DG-1 subbase fuel tank, and verify that the indicator is between 3/4 and F (full)

[14] **IF** the indicator for POND-A4-LG-4 is **NOT** at the full mark,
THEN

[A] Transfer fuel oil from fuel oil storage tank POND-A4-TK-3 to the POND-A4-DG-1 subbase fuel tank in accordance with Section 12, Instructions-Fuel Oil Transfer System Operation

[B] Record in the Log Book

NOTE 1 *Control panel POND-A4-CP-1 is inside the west access panels of POND-A4-DG-1*

NOTE 2 *The layout of POND-A4-CP-1 is shown on Appendix 1, POND-A4 Shelter Control Panel POND-A4-CP-1*

NOTE 3 *Breakers BK-1, BK-2, and BK-3 are located inside the middle west access panel of POND-A4-DG-1, below and to the right of POND-A4-CP-1, facing south*

[15] Ensure that the following breakers are ON

- BK-1
- BK-2
- BK-3

[16] Press and hold the LAMP TEST switch on POND-A4-CP-1 in TEST

[17] Verify that all 16 lights on the lower right portion of POND-A4-CP-1 are ON

[18] Release the LAMP TEST switch on POND-A4-CP-1

[19] **IF** any of the 16 lights did **NOT** illuminate,
THEN

[A] Notify the SW Project Manager to initiate corrective action in accordance with 1-74000-IWCP-1, *Work Control Form Processing*

[B] Record in the Log Book

- [20] Place the SILENCE/ALARM/NORMAL switch on POND-A4-CP-1 in SILENCE
- [21] Ensure that the AMPS/VOLTS switch on POND-A4-CP-1 is set to 3 Ø (3 phase)
- [22] Place the TURN ON BEFORE STARTING switch on POND-A4-CP-1 in ON
- [23] Place the RUN-OFF/RESET-AUTO switch on POND-A4-CP-1 in RUN

CAUTION

**Cranking POND-A4-DG-1 for longer than 45 seconds
could cause engine and battery damage.**

- [24] IF POND-A4-DG-1 does NOT start after 45 seconds of cranking,
THEN:
 - [A] Place the RUN-OFF/RESET-AUTO switch on POND-A4-CP-1 in OFF/RESET
 - [B] Notify the SW Project Manager to initiate corrective action in accordance with 1-74000-IWCP-1, *Work Control Form Processing*
 - [C] Record in the Log Book
- [25] Verify that POND-A4-DG-1 starts
- [26] IF POND-A4-DG-1 starts,
AND any warning light on POND-A4-CP-1 is ON, except one of the following
 - LOW METERS SCALES (amber)
 - GENERATOR SWITCH NOT IN AUTO (red)

THEN.

- [A] Place the RUN-OFF/RESET-AUTO switch on POND-A4-CP-1 in OFF/RESET

[B] Notify the SW Project Manager to initiate corrective action in accordance with 1-74000-IWCP-1, *Work Control Form Processing*

[C] Record in the Log Book

NOTE *The WATER TEMP gauge is extremely difficult to read accurately
The Field Technician uses judgement in estimating the temperature
based on the meter position*

[27] **WHEN** the WATER TEMP reading on Control Panel POND-A4-CP-1 is between 180° and 202° F,
THEN

[A] Verify the following indications on POND-A4-CP-1

- LOW METER SCALES (amber) light is ON
- GENERATOR SWITCH NOT IN AUTO (red) light is ON
- OIL PRESS is 40 and 70 psi
- WATER TEMP is between 180° and 202° F
- BATTERY is between 12 and 16 volts
- HERTZ is between 59.5 and 62.5 Hz
- A-C VOLTS is between 200 and 215 volts

[B] Record the indications in the Log Book

[28] **IF** any discrepancy in indications on POND-A4-CP-1 is found,
THEN

[A] Notify the SW Project Manager to initiate corrective action in accordance with 1-74000-IWCP-1, *Work Control Form Processing*

[B] Record in the Log Book

[29] Verify once every eight (8) hours that POND-A4-LG-4 is above the 1/4-full mark

[A] Record the time in the Log Book

[30] **IF** POND-A4-LG-4 is at or below the 1/4-full mark,
THEN

- [A] Transfer fuel oil from POND-A4-TK-3 to POND-A4-DG-1 subbase fuel tank in accordance with Section 12, Instructions-Fuel Oil Transfer System Operation
 - [B] Record in the Log Book.
- [31] Verify the following every four (4) hours
- No warning light on POND-A4-CP-1 is ON, except one of the following
 - LOW METER SCALES (amber)
 - GENERATOR SWITCH NOT IN AUTO (red)
 - POND-A4-DG-1 is operating
- [A] Record the time in the Log Book.
- [32] IF any warning light on POND-A4-CP-1 is ON, except one of the following,
- LOW METER SCALES (amber)
 - GENERATOR SWITCH NOT IN AUTO (red)
- OR POND-A4-DG-1 is NOT operating,
THEN
- [A] Notify the SW Project Manager to initiate corrective action in accordance with 1-74000-IWCP-1, *Work Control Form Processing*
- [B] Record in the Log Book

7 INSTRUCTIONS-DIESEL GENERATOR POND-A4-DG-1 SHUTDOWN

Field Technician

- [1] Ensure that all applicable prerequisites in Section 5, Prerequisite Actions are complete
- [A] Record in Log Book
- [2] Ensure that the propane heating system is not operating

6/25/97

- [3] IF the propane heating system is operating,
THEN shut down the propane heating system in accordance with Section 11.
Instructions-Propane Heating System Shutdown

NOTE *POND A-4 Shelter lighting panel PNL LP1A is inside the shelter on the east wall, and the layout is shown on Appendix 2, POND A-4 Shelter Lighting Panel LP1A POND A-4 TENT 1*

- [4] Place the following breakers in lighting panel PNL LP1A in OFF

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

NOTE 1 *Control panel POND-A4-CP-1 is inside the west access panels of POND-A4-DG-1*

NOTE 2 *The layout of POND-A4-CP-1 is shown on Appendix 1, POND-A4 Shelter Diesel Generator Control Panel POND-A4-CP-1*

- [5] Wait five (5) minutes to allow the generator to cool
- [6] Place the RUN-OFF/RESET-AUTO switch on POND-A4-CP-1 in OFF/RESET
- [7] Place the TURN ON BEFORE STARTING switch on POND-A4-CP-1 in OFF

NOTE *Breakers BK-1, BK-2, and BK are located inside the middle west access panel of POND-A4-DG-1, below and to the right of POND-A4-CP-1, facing south.*

[8] Place the following breakers in OFF

- BK-1
- BK-2
- BK-3

NOTE *The POND-A4-DG-1 subbase fuel tank is not maintained full to allow for expansion.*

[9] Observe fuel gauge/fill cap POND-A4-LG-4 for the POND-A4-DG-1 subbase fuel tank, and verify that the indicator is between 3/4 and F (full)

[10] IF POND-A4-LG-4 is NOT at the full mark,
THEN

[A] Transfer fuel oil from fuel oil storage tank POND-A4-TK-3 to the POND-A4-DG-1 subbase fuel tank in accordance with Section 12, Instructions-Fuel Oil Transfer System Operation.

[B] Record in the Log Book

[11] IF the access panels for POND-A4-DG-1 are NOT in place,
THEN install the access panels

8 INSTRUCTIONS-SHELTER LIGHTING SYSTEM STARTUP

Field Technician

[1] Ensure that all applicable prerequisites in Section 5, Prerequisite Actions are complete

[A] Record in the Log Book.

6/26/97

NOTE *Diesel generator POND-A4-DG-1 is to be in operation before the startup of the shelter lighting system.*

- [2] Ensure that POND-A4-DG-1 is in operation in accordance with Section 6, Instructions-Diesel Generator POND-A4-DG-1 Startup

NOTE *POND A-4 Shelter lighting panel PNL LP1A is inside the shelter on the east wall, and the layout is shown on Appendix 2, POND A-4 Shelter Lighting Panel LP1A POND A-4 TENT 1*

Field Technician

- [3] Place the following breakers in PNL LP1A in ON

- 1
- 2
- 4
- 6
- 8

9 INSTRUCTIONS-SHELTER LIGHTING SYSTEM SHUTDOWN

NOTE *POND A-4 Shelter lighting panel PNL LP1A is inside the shelter on the east wall, and the layout is shown on Appendix 2, POND A-4 Shelter Lighting Panel LP1A POND A-4 TENT 1*

Field Technician

- [1] Ensure that all applicable prerequisites in Section 5, Prerequisite Actions are complete

- [A] Record in the Log Book

6/26/97

[2] Place the following breakers in PNL LP1A in OFF

- 1
- 2
- 4
- 6
- 8

10 INSTRUCTIONS-PROPANE HEATING SYSTEM STARTUP

Field Technician

[1] Ensure that all applicable prerequisites in Section 5, Prerequisite Actions are complete

[A] Record in the Log Book.

NOTE 1 *Diesel generator POND-A4-DG-1 is to be in operations before startup of the propane heating system.*

NOTE 2 *Valve POND-A4-V-6 is the emergency shutoff for the propane fuel supply and is outside the shelter at the northeast corner*

[2] Ensure that POND-A4-DG-1 is in operation in accordance with Section 6, Instructions-Diesel Generator POND-A4-DG-1 Startup

NOTE *Valves POND-A4-V-3 through POND-A4-V-6 are shown on Appendix 3, POND-A4 Shelter Propane Gas System.*

[3] Ensure that the following valves are open.

- POND-A4-V-3
- POND-A4-V-4
- POND-A4-V-5
- POND-A4-V-6

6/26/97

NOTE *Fuel level gauges POND-A4-LG-1 and POND-A4-LG-2 are shown on Appendix 3, POND-A4 Shelter Propane Gas System.*

[4] Verify that the following propane fuel level gauges indicate at least 30%

- POND-A4-LG-1 on fuel tank POND-A4-TK-1
- POND-A4-LG-2 on fuel tank POND-A4-TK-2

[5] **IF** POND-A4-LG-1 or POND-A4-LG-2 indicates less than 30%,
THEN

[A] Notify the SW Project Manager to initiate corrective action in accordance with 1-74000-IWCP-1, *Work Control Form Processing*

[B] Record in the Log Book

NOTE 1 *The 2 propane heating system vacuum pumps discharge the burnt gas to the atmosphere after the gas has passed through the heating tubes*

NOTE 2 *POND A-4 Shelter lighting panel PNL LP1A is inside the shelter on the east wall, and the layout is shown on Appendix 2, POND A-4 Shelter Lighting Panel LP1A POND A-4 TENT 1*

[6] Place Breaker 3 in PNL LP1A in ON to start the vacuum pump located on the north end of the shelter in the overhead

[7] Place Breaker 5 in PNL LP1A in ON to start the vacuum pump located on the south end of the shelter in the overhead

WARNING

The two (2) vacuum pumps are to be operating before the propane heating system is started to prevent the build-up of excess propane gas in the heating tubes

[8] Verify that the two (2) vacuum pumps start

[9] **IF** the two (2) vacuum pumps do **NOT** start,
THEN

- [A] Place Breaker 3 in PNL LP1A in OFF
 - [B] Place Breaker 5 in PNL LP1A in OFF
 - [C] Notify the SW Project Manager to initiate corrective action in accordance with 1-74000-IWCP-1, *Work Control Form Processing*
 - [D] Record in the Log Book
- [10] Wait ten (10) minutes before proceeding to allow sufficient time for the heating tubes to purge

NOTE *Propane heating system control panel PNL L1A CIR 3 is inside the shelter on the east side, and the panel is shown on Appendix 4, POND A-4 Shelter Propane Heating System Control Panels*

- [11] Adjust thermostat POND-A4-T-1 on PNL L1A CIR 3 to 65° F

NOTE *Propane heating system control panel PNL L1A CIR 5 is inside the shelter on the west side, and the panel is shown on Appendix 4*

- [12] Adjust thermostat POND-A4-T-2 on PNL L1A CIR 5 to 65° F

NOTE *When the burners first light, an orange flame will appear in the sight glass. After the burner reaches operating temperature, the flame will turn blue*

- [13] Verify that all propane heater burners are ON by observing a blue flame in the sight glass at the end of each of the eight heating tubes

- [14] Verify that the following green lights on PNL L1A CIR 3 and PNL L1A CIR 5 are ON

- EXHAUSTER
- BURNERS 1 & 2
- BURNERS 3 & 4

- [15] IF any light is NOT ON,
THEN

- [A] Notify the SW Project Manager to initiate corrective action in accordance with 1-74000-IWCP-1, *Work Control Form Processing*

- [B] Record in the Log Book

WARNING

If all eight burners do not light, there can be an accumulation of propane gas in the shelter

- [16] **IF** all eight burners do **NOT** light,
THEN immediately attempt to start the burners again by cycling POND-A4-T-1 and POND-A4-T-2
- [17] **IF** all eight burners do **NOT** light,
THEN
- [A] Place POND-A4-T-1 and POND-A4-T-2 in the minimum setting
- [B] Evacuate the shelter
- [C] Close POND-A4-V-6 to shut off the propane fuel supply
- [D] Notify the SW Project Manager to initiate corrective action in accordance with 1-74000-IWCP-1, *Work Control Form Processing*
- [E] Record in the Log Book

Field Technician

- [1] Ensure that all applicable prerequisites in Section 5, Prerequisite Actions are complete

- [A] Record in the Log Book

NOTE *Propane heating system control panel PNL L1A CIR 3 is inside the shelter on the east side, and the panel is shown on Appendix 4, POND A-4 Shelter Propane Heating System Control Panels*

- [2] Adjust thermostat POND-A4-T-1 on PNL L1A CIR 3 to 40° F

6/25/97

NOTE *Propane heating system control panel PNL L1A CIR 5 is inside the shelter on the west side, and the panel is shown on Appendix 4.*

- [3] Adjust thermostat POND-A4-T-2 on PNL L1A CIR 5 to 40° F
- [4] Wait ten (10) minutes before proceeding to allow the propane heating burners to cool

NOTE *POND A-4 Shelter lighting panel PNL LP1A is inside the shelter on the east wall, and the layout is shown on Appendix 2, POND A-4 Shelter Lighting Panel LP1A POND A-4 TENT 1*

- [5] Place Breaker 3 in PNL LP1A in OFF
- [6] Place Breaker 5 in PNL LP1A in OFF

NOTE *Valves POND-A4-V-3 and POND-A4-V-4 are shown on Appendix 3, POND-A4 Shelter Propane Gas System.*

- [7] Close the following valves to shut off the propane fuel supply to the shelter
 - POND-A4-V-3
 - POND-A4-V-4

12 INSTRUCTIONS-FUEL OIL TRANSFER SYSTEM OPERATION

NOTE *One Field Technician is stationed at fuel oil storage tank POND-A4-TK-3, and one Field Technician is stationed at diesel generator POND-A4-DG-1*

Field Technician #1

- [1] Ensure that all applicable prerequisites in Section 5, Prerequisite Actions are complete
 - [A] Record in the Log Book.
- [2] Verify that fuel gauge POND-A4-LG-3 on POND-A4-TK-3 is above the 1/4-full mark.
- [3] IF POND-A4-LG-3 is at or below the 1/4-full mark,
THEN:

[A] Notify the SW Project Manager of the need to procure new fuel in accordance with Section 13, Instructions-New Fuel Supply

[B] Record in the Log Book

- [4] Ensure that diesel generator POND-A4-DG-1 is in operation in accordance with Section 6, Instructions-Diesel Generator POND-A4-DG-1 Startup

NOTE *POND A-4 Shelter lighting panel PNL LP1A is inside the shelter on the east wall, and the layout is shown on Appendix 2, POND A-4 Shelter Lighting Panel LP1A POND A-4 TENT 1*

- [5] Place Breaker 7 in PNL LP1A in ON

Breaker 7 provides power to fuel oil transfer pump POND-A4-P-3

NOTE *Valves POND-A4-V-A and POND-A4-V-2 are outside on the east side of the shelter and are shown on Appendix 5, POND A-4 Shelter Fuel Oil Transfer System.*

Field Technician #2

- [6] Open POND-A4-V-1

- [7] Open POND-A4-V-2

Field Technician #1

- [8] Loosen fuel gauge/fill cap POND-A4-LG-4 one turn for the POND-A4-DG-1 subbase fuel tank

Loosening POND-A4-LG-4 allows the air in the POND-A4-DG-1 subbase fuel tank to escape during filling and provides for observation of the fuel level to determine when the subbase fuel tank is near full

Field Technician #2

- [9] Ensure that switch POND-A4-S-1, mounted on POND-A4-P-3, is in the UP (ON) position

- [10] Place switch POND-A4-S-2 on the west side of POND-A4-TK-3 in ON

Starting fuel oil transfer pump POND-A4-P-3, mounted on top of POND-A4-TK-3, will start to transfer fuel from POND-A4-TK-3 to the POND-A4-DG-1 subbase fuel tank

- [11] Verify that POND-A4-P-3 starts
- [12] **IF** POND-A4-P-3 does NOT start,
THEN
- [A] Notify the SW Project Manager to initiate corrective action in accordance with 1-74000-IWCP-1, *Work Control Form Processing*
- [B] Record in the Log Book.

WARNING

The POND-A4-DG-1 subbase fuel tank is to be constantly observed during fuel transfer operations to prevent overflow. POND-A4-LG-4 must not go past the full mark.

Field Technician #1

- [13] Ensure that the POND-A4-DG-1 subbase fuel tank does not overflow by observing POND-A4-LG-4

NOTE *The POND-A4-DG-1 subbase fuel tank is not maintained full to allow for expansion.*

- [14] **WHEN** POND-A4-LG-4 approaches the 3/4 mark,
THEN notify Field Technician #2 to place POND-A4-S-2 in OFF
- [15] **IF** any fuel was spilled,
THEN:
- [A] Notify the Shift Superintendent.
- [B] Record in the Log Book
- The approximate amount of the spill
 - The notification to the Shift Superintendent.

6/26/97

Field Technician #2

- [16] Place POND-A4-S-2 in OFF
- [17] Close POND-A4-V-2
- [18] Tighten POND-A4-LG-4

Field Technician #1

- [19] Place Breaker 7 in LP1A in OFF

13 INSTRUCTIONS-NEW FUEL SUPPLY

Field Technicians

- [1] Ensure that all applicable prerequisites in Section 5, Prerequisite Actions are complete
 - [A] Record in the Log Book
- [2] **WHEN ANY** of the following conditions exist
 - Propane fuel level gauge POND-A4-LG-1 on propane fuel storage tank POND-A4-TK-1 indicates less than 30%,
 - Propane fuel level gauge POND-A4-LG-2 on propane fuel storage tank POND-A4-TK-2 indicates less than 30%,
 - Fuel oil level gauge POND-A4-LG-3 on fuel oil storage tank POND-A4-TK-3 is at or below the 1/4-full mark,

THEN

- [A] Notify the SW Project Manager to initiate corrective action in accordance with 1-74000-IWCP-1, *Work Control Form Processing*
- [B] Record in the Log Book

14 POST-PERFORMANCE ACTIVITY

14 1 Disposition

SW Project Manager

- [1] Manage the Log Book in accordance with 1-77000-RM-001, *Records Management Guidance for Records Sources*

15 REFERENCES

Environmental Protection Agency National Pollutant Discharge Elimination System
Permit No CO-0001333

Operations and Maintenance Manual, 40ROZJ Generator, Kohler Power Systems

1-10000-HWR, *Hazardous Waste Requirements Manual*

1-25600-HSP-20 01, *Access to and Use of the Rocky Flats Environmental Technology
Site Buffer Zone*

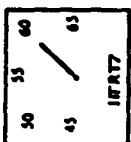
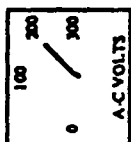
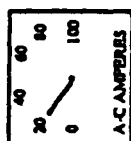
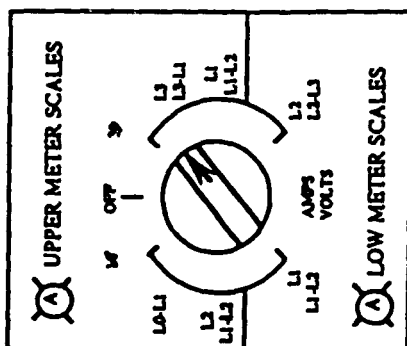
1-74000-IWCP-1, *Work Control Form Processing*

1-77000-RM-001, *Records Management Guidance for Records Sources*

6/25/97

APPENDIX 1

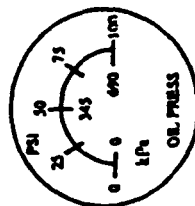
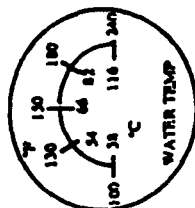
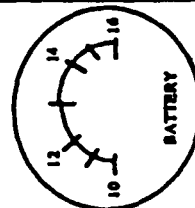
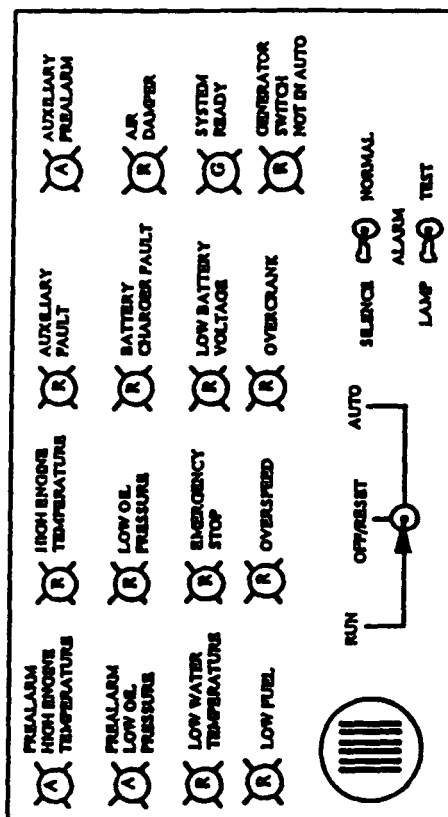
POND A-4 SHELTER DIESEL GENERATOR CONTROL PANEL POND-A4-CP-1



ON
OFF
TURN ON
BEFORE
STARTING

VOL TACH

TOTAL HOURS
1 2 3 4 5 6 7 8 9 10



BK 1 BK 2 BK 3

6/25/97

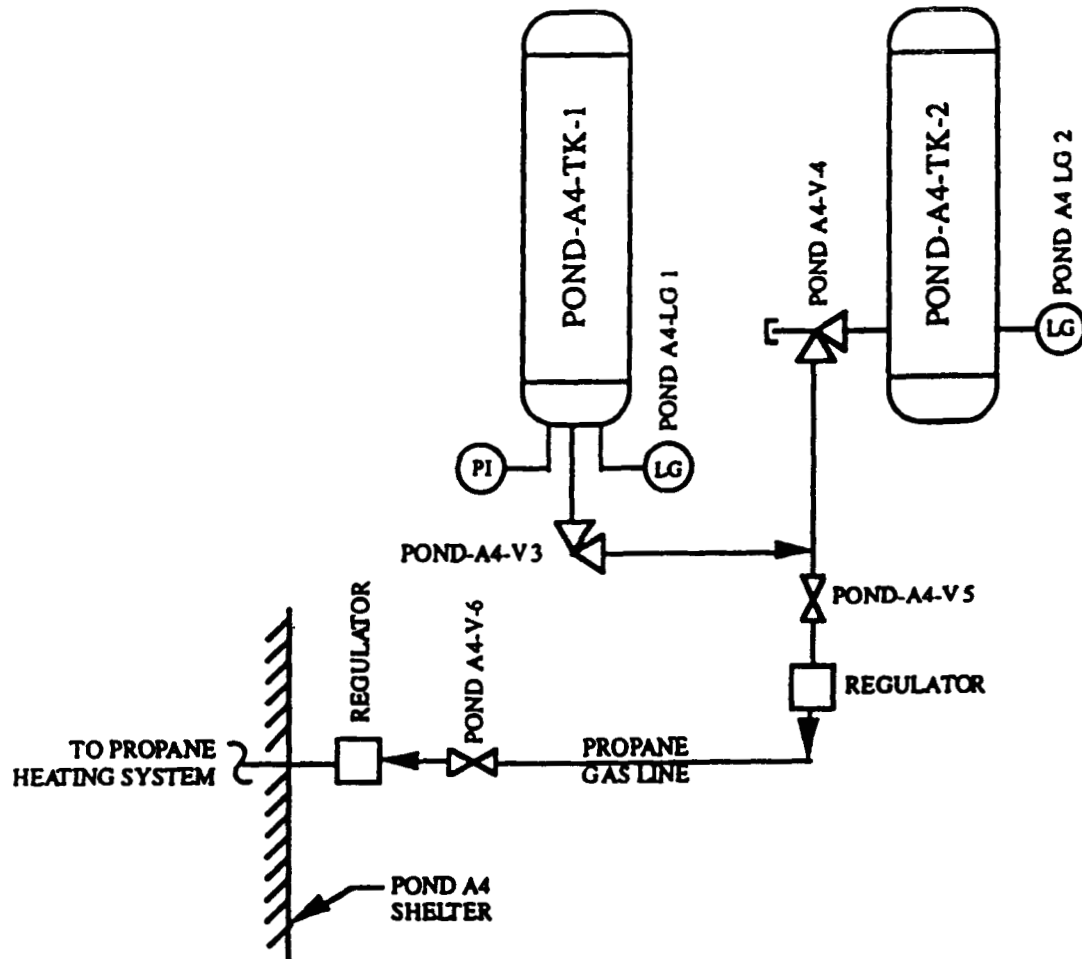
APPENDIX 2

POND A-4 SHELTER LIGHTING PANEL LP1A POND A-4 TENT 1

LP1A POND A-4 TENT 1 120/208 V GENERATOR L1A V208/120 Ø3 W4			
EXIT LIGHTS/EM LIGHTS	1	2	NORTHWEST LIGHTING
VACUUM PUMP NORTHEAST	3	4	NORTHEAST LIGHTING
VACUUM PUMP SOUTHWEST	5	6	SOUTHWEST LIGHTING
DIESEL FUEL PUMP	7	8	SOUTHEAST LIGHTING
SPARE	9	10	SPARE
SPARE	11	12	SPARE

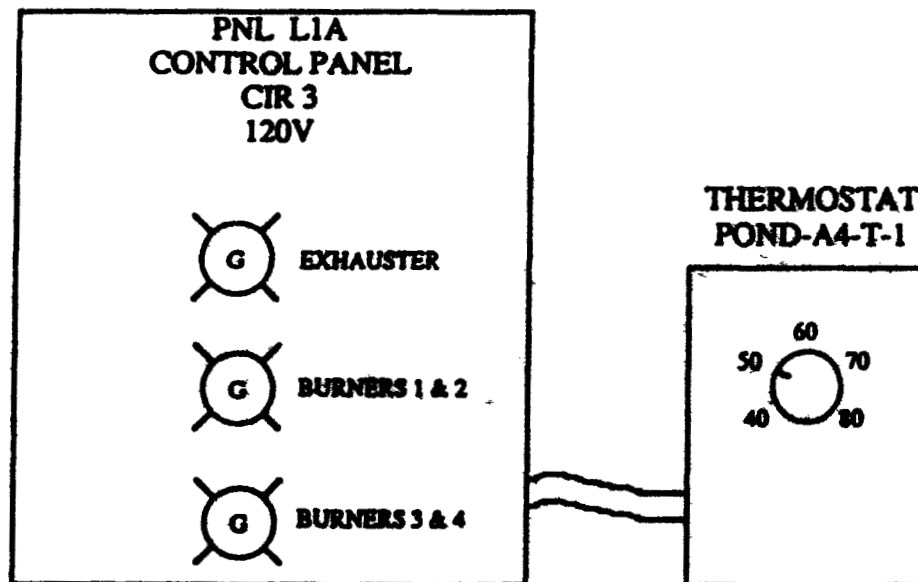
APPENDIX 3

POND A-4 SHELTER PROPANE GAS SYSTEM

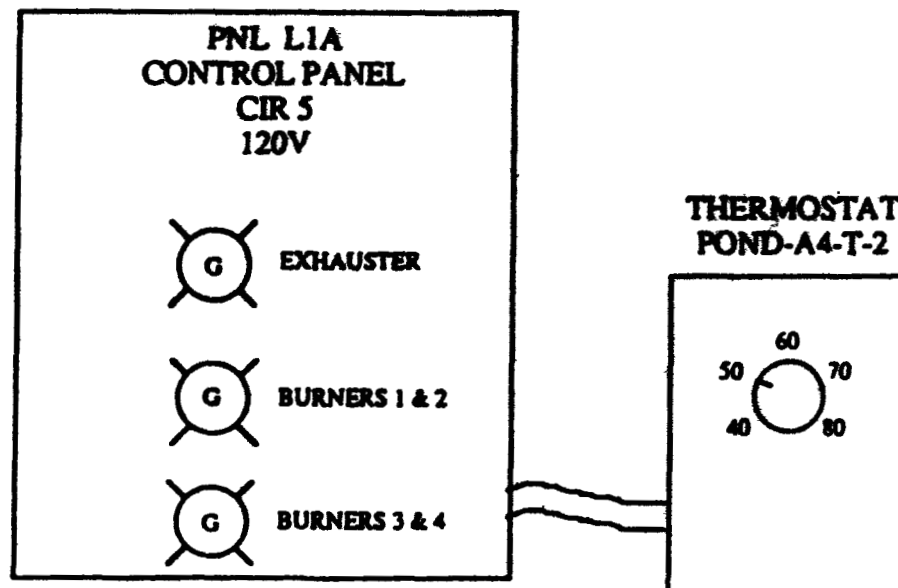


APPENDIX 4

POND A-4 SHELTER PROPANE HEATING SYSTEM CONTROL PANELS



**EAST PANEL
PNL L1A CIR 3**



**EAST PANEL
PNL L1A CIR 5**

APPENDIX 5

POND A-4 SHELTER FUEL OIL TRANSFER SYSTEM

